



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/584,244

08/17/2006

Masahiro Sato

128530

1479

25944 7590 03/06/2009

OLIFF & BERRIDGE, PLC  
P.O. BOX 320850  
ALEXANDRIA, VA 22320-4850

EXAMINER

FOGARTY, CAITLIN ANNE

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

03/06/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/584,244	<b>Applicant(s)</b> SATO ET AL.	
	<b>Examiner</b> CAITLIN FOGARTY	<b>Art Unit</b> 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2,3,7-10,12-15,17 and 18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2,3,7-10,12-15,17 and 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status of Claims***

1. Claims 2, 3, 7 – 10, 12 – 15, 17, and 18 are pending. Claims 1, 4 – 6, 11, and 16 have been cancelled.

### ***Status of Previous Rejections***

2. The 35 U.S.C. 103(a) rejection of claim 1, 2, 4-7, 9, 11, 12, 14, 16, and 17 as being unpatentable over Bouse et al. (US 2003/0103862) has been maintained. The rejection of claims 1, 4-6, 11, and 16 is now moot since they have been cancelled.

The 35 U.S.C. 103(a) rejection of claims 3, 8, 10, 13, 15, and 18 as being unpatentable over Cetel et al. (US 5,451,142) has been maintained.

### ***Claim Rejections - 35 USC § 103***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 2, 7, 9, 12, 14, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bouse et al. (US 2003/0103862).

Bouse is applied to instant claims 2, 7, 9, 12, 14, and 17 as set forth in the June 30, 2008 Office action.

5. Claims 3, 8, 10, 13, 15, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cetel et al. (US 5,451,142).

Cetel is applied to instant claims 3, 8, 10, 13, 15, and 18 as set forth in the June 30, 2008 Office action.

***Response to Arguments***

6. Applicant's arguments filed December 29, 2008 have been fully considered but they are not persuasive.

Arguments are summarized as follows:

- a. As shown in the Office action, the claimed element ranges and the disclosed element ranges of Bouse and Cetel overlap to varying degrees. However, simply showing that the ranges overlap, does not establish that every possible encompassed specific alloy or range of alloys would have been obvious. Bouse and Cetel both fail to teach or suggest all the claim limitations, and provide no reason or rationale for one of ordinary skill in the art to have selected each of the recited elements to be within the claimed ranges so as to practice the claimed invention.
- b. The Office action has not cited a single specific embodiment in Bouse or Cetel that satisfies all or even most of the claimed ranges. No reason or rationale is provided for one of ordinary skill in the art to have made each and every one of the required selections, to achieve an alloy having each of Co, Cr, Mo, W, Al, Ti, Ta, Hf, Re, C, B, Zr, and Ni within the relatively narrow ranges specified in claims 2 and 3.
- c. Neither Bouse nor Cetel provide any reason or rationale for one of ordinary skill in the art to have selected Applicants' narrow claimed amounts from the much broader ranges disclosed in Bouse and Cetel. Clearly, the only

possible reason for selecting Applicants' claimed amounts, improperly comes from Applicants' own disclosure and claims as a roadmap.

d. The specific compositions disclosed in both Bouse and Cetel would have led one of ordinary skill in the art away from the claimed invention, not towards it. Despite the broad disclosure at paragraphs [0006]-[0020], Bouse discloses narrower, preferred ranges at paragraphs [0021]-[0048]. In the narrower preferred ranges of Bouse at least Co, Mo, Ti, Ta, and Hf are present in amounts well outside the ranges of claim 2. The specific compositions set forth in Table 1 of Cetel are equiaxed, columnar grain, and single crystal materials which are different from the claimed invention. Even in those specific compositions, and despite the broad disclosures of Table 1, Cetel discloses narrower, preferred ranges that differ from the claimed ranges.

e. At least several elements that are required to be present in the claimed superalloy are indicated as only optional elements in both Bouse and Cetel. Neither Bouse nor Cetel provides reason or rationale to not only specifically require that these elements be present, rather than being absent, but likewise provides no reason or rationale to have them present in the amounts specifically required in claims 2 and 3.

Examiner's responses are as follows:

a. In the absence of factual evidence to the contrary, the Examiner maintains the position that since the claimed compositional ranges either overlap or are within the ranges disclosed by both Bouse and Cetel, a prima facie case of

obviousness exists. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the claimed Ni-base superalloy composition from the Ni-base superalloy composition disclosed by Bouse and Cetel because both Bouse and Cetel teach the same utility (i.e. a gas turbine component) in the whole disclosed range. Furthermore, a prior art reference that discloses a range encompassing a somewhat narrower claimed range is sufficient to establish a *prima facie* case of obviousness." In *re* Peterson, 315 F.3d 1325, 1330, 65 USPQ2d 1379, 1382-83 (Fed. Cir. 2003) and In *re* Harris, 409 F.3d 1339, 74 USPQ2d 1951 (Fed. Cir. 2005). See MPEP 2144.05.

b. The scope of Bouse and Cetel is not limited to the specific embodiments it teaches (see *In re Fracalossi* 215 USPQ 569 (CCPA 1982)).

c. A prior art reference that discloses a range encompassing a somewhat narrower claimed range is sufficient to establish a *prima facie* case of obviousness." In *re* Peterson, 315 F.3d 1325, 1330, 65 USPQ2d 1379, 1382-83 (Fed. Cir. 2003) and In *re* Harris, 409 F.3d 1339, 74 USPQ2d 1951 (Fed. Cir. 2005). See MPEP 2144.05. Therefore, the Examiner did not use Applicants' own disclosure and claims as a roadmap.

d. Although both Bouse and Cetel teach narrower ranges of elements that are not within the instant claimed ranges, neither Bouse nor Cetel is limited to the specific embodiments it teaches (see *In re Fracalossi* 215 USPQ 569 (CCPA 1982)). In addition Bouse and Cetel do not teach against the broader ranges that they teach and therefore the broader ranges are still valid teachings of Bouse

and Cetel.

e. Although both Bouse and Cetel teach that some of the required instant recited elements are optional, neither Bouse nor Cetel teaches away from the addition of these optional elements. Therefore, both Bouse and Cetel teach compositions of Ni-base superalloys that either overlap or are within the ranges disclosed by both Bouse and Cetel and as a result a prima facie case of obviousness exists.

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CAITLIN FOGARTY whose telephone number is (571)270-3589. The examiner can normally be reached on Monday - Friday 8:00 AM - 5:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/  
Supervisory Patent Examiner, Art  
Unit 1793

CF